DRILL HOLES

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PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF US 40 (PULASKI HWY) AND MD 7/MD 159 (PHILADELPHIA ROAD) IN HARFORD COUNTY. THE WORK IS NECESSITATED BY THE WIDENING OF THE NORTH LEG TO THE INTERSECTION (MD 7). US 40 IS ASSUMED TO RUN IN AN EAST–WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA EIGHT–PHASE, FULLY–ACTUATED MODE WITH AN EXCLUSIVE–PERMISSIVE LEFT TURN PHASES FOR ALL APPROACHES OF THE INTERSECTION. THE SOUTHBOUND DOUBLE LEFT ON MD 7 WILL NOW RUN AS AN EXCLUSIVE LEFT TURN PHASE.

CONTROLLER REQUIREMENTS

THE EXISTING EIGHT–PHASE, FULLY–ACTUATED CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE USED.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	DESCRIPTION
LS	MAINTENANCE OF TRAFFIC
1 CY	TEST PIT EXCAVATION
1825 LF	5 INCH HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
45 LF	24 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
4 EA	HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROWS
5 EA	ELECTRICAL HANDHOLE
340 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT – TRENCHED
100 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT – TRENCHED
80 LF	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT– BORED
125 LF	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT– BORED
3 EA	CONDUIT BEND IN EXISTING FOUNDATION
LS	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT
20 LF	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
50 LF	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
470 LF	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
750 LF	DISCONNECT, PULL BACK AND REROUTE CABLE
1 EA	3/4 IN. X 10 FT. GROUND ROD
2 EA	R3–5L (30" X 36") SIGN – MAST ARM MOUNT
1 EA	R3–8A (48" X 30") SIGN – GROUND MOUNT
30 LF	4 IN. X 4 IN. WOOD SUPPORTS
26 EA	12 IN. LED SIGNAL HEAD SECTION
2 EA	8 IN. LED SIGNAL HEAD SECTION
1 EA	NON–INVASIVE MICRO–LOOP PROBE WITH LEAD–IN CABLE

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787–7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MS. ERIN KUHN
ASSISTANT DISTRICT ENGINEER – TRAFFIC
(410) 229–2380

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER – MAINTENANCE
(410) 229–2361

MR. MICHAEL PASQUARIELLO
UTILITY ENGINEER
(410) 229–2341

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787–7630

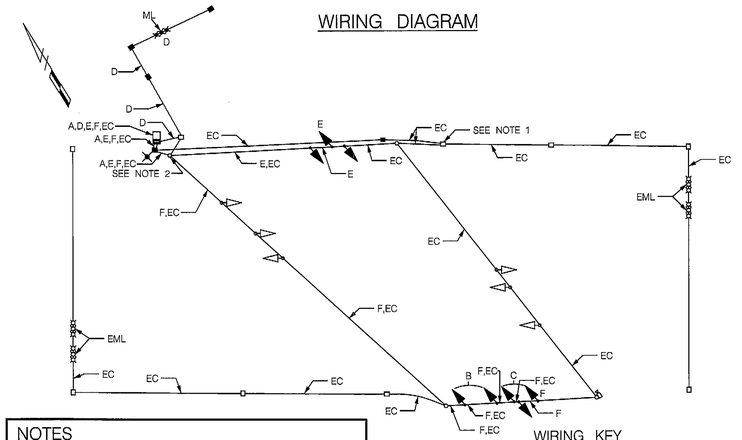
MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787–7676

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787–7631

MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787–7668

MR. ED RODENHIZER
CHIEF – SIGNAL OPERATIONS SECTION
(410) 787–7652

WIRING DIAGRAM



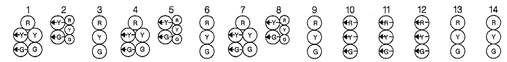
NOTES

1. DISCONNECT THE MICRO–LOOP PROBE LEAD–INS FOR W.B. US 40 AND PULL BACK TO THIS POINT. REINSTALL CABLE THROUGH NEW CONDUIT TO THE EXISTING BASE MOUNTED CABINET.
2. DISCONNECT THE MICRO–LOOP PROBE LEAD–INS FOR E.B. US 40, ALL SIGNAL CABLES AND ALL VIDEO DETECTION CABLES BACK TO THIS POINT. REINSTALL CABLE THROUGH NEW CONDUIT TO THE EXISTING BASE MOUNTED CABINET.

WIRING KEY

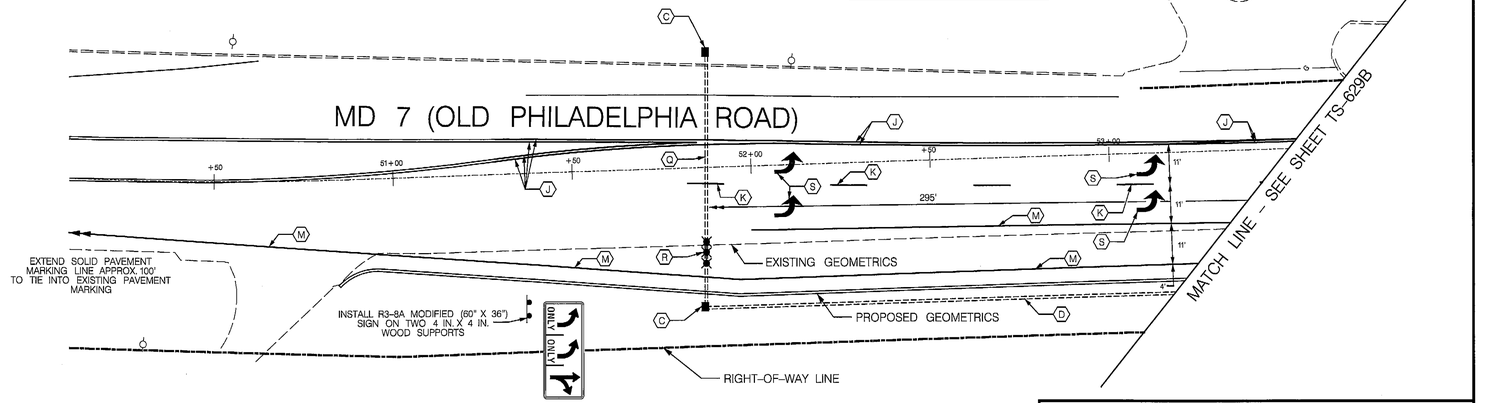
A	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
B,C	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
E,F	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
D	MICRO–LOOP PROBE
⊠	GROUND ROD
EC	EXISTING CABLE
EML	EXISTING MICRO–LOOP PROBE
ML	MICRO–LOOP PROBE

PHASE CHART



PHASE 1 & 5	R G	R G	R	R G	R G	R	R	R	R	R	R	R	R	R
1 & 5 CHANGE	PHASE 1 & 5 MAY CHANGE TO PHASE 1 & 6, 2 & 5, OR 2 & 6													
PHASE 1 & 6	G G	G G	G	R	R	R	R	R	R	R	R	R	R	R
1 CHANGE	G Y	G Y	G	R	R	R	R	R	R	R	R	R	R	R
PHASE 2 & 5	R	R	R	G G	G G	G	R	R	R	R	R	R	R	R
5 CHANGE	R	R	R	G Y	G Y	G	R	R	R	R	R	R	R	R
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	R	R
PHASE 3 & 7	R	R	R	R	R	R	R G	R G	R	G	G	G	R	R
3 & 7 CHANGE	PHASE 3 & 7 MAY CHANGE TO PHASE 3 & 8, 4 & 7, OR 4 & 8													
PHASE 3 & 8	R	R	R	R	R	R	G G	G G	G	R	R	R	R	R
3 CHANGE	R	R	R	R	R	R	G Y	G Y	G	R	R	R	R	R
PHASE 4 & 7	R	R	R	R	R	R	R	R	R	G	G	G	G	G
7 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	G	G
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	R	R	R	G	G
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	Y	Y
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR	FLR	FLR

SCALE : 1" = 20'



SOUTHBOUND MD 7	
SIGNING AND PAVEMENT MARKING LOCATION TABLE	
TRAFFIC CONTROL DEVICE	DISTANCE FROM STOPBAR
ARROWS	170'
ARROWS	270'

CONSTRUCTION DETAILS

A. INSTALL 3 IN. SCHEDULE 80, 90 DEGREE, RIGID, PVC ELECTRICAL CONDUIT BEND IN EXISTING CONCRETE FOUNDATION.
B. INSTALL 2–4 IN. SCHEDULE 80, 90 DEGREE, RIGID, PVC ELECTRICAL BENDS IN EXISTING CONCRETE FOUNDATION.
C. INSTALL ELECTRICAL HANDHOLE
D. INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL CONDUIT – TRENCHED
E. INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL CONDUIT – TRENCHED
F. REMOVE EXISTING HANDHOLE
G. CAP AND ABANDON EXISTING CONDUIT
H. INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL CONDUIT – BORED
I. INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
J. INSTALL 5 IN. YELLOW HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
K. INSTALL 5 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING (10 FT. LINE, 30 FT. GAP)
L. INSTALL 5 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING (3 FT. LINE, 9 FT. GAP)
M. INSTALL 5 IN. WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
N. INSTALL NEW SIGNAL HEAD AND REMOVE EXISTING SIGNAL HEAD AS SHOWN
O. REMOVE EXISTING SIGN
P. INSTALL NEW SIGNAL HEAD AS SHOWN
Q. INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL CONDUIT – BORED
R. INSTALL NON–INVASIVE MICRO–LOOP PROBE WITH LEAD–IN CABLE
S. INSTALL WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING ARROW

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite B
Gambrills, MD 21054
(410) 923–7101
FAX: (410) 923–6473
EMAIL: TRAFFIC@TRAFFIC–CONCEPTS.COM

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

US 40 (PULASKI HWY) AND MD 7/ MD 159 (OLD PHILADELPHIA ROAD) ABERDEEN, MARYLAND

GENERAL INFORMATION PLAN

SCALE	NONE	DATE	4–14–10
CONTRACT NO.	BW–996M82		
DESIGNED BY	T. ZAYDEL	COUNTY	HARFORD
DRAWN BY	T. ZAYDEL	LOGMILE	12000711.22
CHECKED BY	K. SCHMID	T.I.M.S. NO.	K–154
F.A.P. NO.		TOD NO.	
DRAWING NO.	TS–629B GI	SHEET NO.	2 OF 2

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DATE: Wednesday, April 14, 2010 AT 02:23 PM